

A SIGNALING QUALITY OF SERVICE CLASS FOR USE IN MULTIMEDIA COMMUNICATIONS

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is related to commonly-assigned U.S. Patent
5 Application Serial No. 09/768,956, entitled "RSVP Handling in 3G Networks," filed
on January 24, 2001; U.S. Patent Application Serial No. 09/861,817, entitled
"Application Influenced Policy," filed on May 21, 2001; U.S. Patent Application
Serial No. 09/985,573, entitled "Media Binding to Coordinating Quality of Service
Requirements for Media Flows in a Multimedia Session with IP Bearer Resources,"
10 filed November 5, 2001; and U.S. Patent Application Serial No. 09/985,633, entitled
"Method and Apparatus for Coordinating Charges for Services Provided in a
Multimedia Session," filed November 5, 2001; and U.S. Patent Application Serial
No. 09/985,631, entitled "Method and Apparatus for Coordinating Quality of
Service Requirements for Media Flows in a Multimedia System With IP Bearer
15 Resources," filed November 5, 2001; and U.S. Patent Application Serial
No. 10/038,770, entitled "Method and Apparatus for Coordinating End-to-End
Quality of Service Requirements for Media Flows in a Multimedia Session," filed
January 8, 2002, the disclosures of which are incorporated herein by reference.

REFERENCE TO PRIORITY APPLICATIONS

20 This application claims priority from and incorporates by reference the
following commonly-assigned provisional patent applications: 60/267,737 entitled
"Authorization Token in PDP Context Activation/Modification in Bearer
Establishment for SIP Call Setup," filed February 9, 2001; 60/269,572 entitled
"Binding a Signaling Bearer for Use With an IP Multimedia Subsystem," filed
25 February 16, 2001; 60/269,573 entitled "QoS Characteristics for a UMTS Bearer

Appropriate for IP Signaling,” filed February 16, 2001; 60/269,789 entitled
“Architecture for Packet Data Protocol Context Suitable for Signaling,” filed
February 16, 2001; 60/273,678 entitled “SDP Support for QoS Based SIP Sessions,”
filed March 6, 2001; 60/275,354 entitled “Enhancement of Authorization Token for
5 RSVP Interworking,” filed March 13, 2001; and 60/324,523, entitled “Use of GPRS
APN in IMS/Ipv6 Context,” filed on September 26, 2001.

FIELD OF THE INVENTION

10 The present invention generally relates to Internet Protocol (IP)
networks, and more specifically, to establishing Quality of Service (QoS) for a
signaling bearer used to establish a multimedia session across an IP access network.

BACKGROUND

15 IP networks were originally designed to carry “best effort” traffic
where the network makes a “best attempt” to deliver a user packet, but does not
guarantee that a user packet will arrive at the destination. Because of the market
success of IP networks, there is a clear requirement for mechanisms that allow IP
networks to support various types of applications. Some of these applications have
Quality of Service (QoS) requirements other than “best effort” service. Examples of
such applications include various real time applications (IP Telephony, video
conferencing), streaming services (audio or video), or high quality data services
20 (browsing with bounded download delays). Recognizing these QoS requirements,
the Internet Engineering Task Force (IETF), which is the main standards body for IP
networking, standardized a set of protocols and mechanisms that enable IP network
operators to build QoS-enabled IP networks.
